

7th ALL Unit 1 Answers

Day 1

1. +9 (OK if you don't write the + sign) 2. -50 (must have the - sign) 3. -53 4. +7 5. -1200 6a. 12 6b. the absolute value sign shows that they must have moved backwards 4 yards, although it is a positive distance 7. 29 8. 6 9. 0 10. 11 11. 14 12. 18 13. 10 14. 3 or -3 15. Cross off $-|7 + 3|$; the others equal 10 16. Circle $|-21|$ 17. It is always true. Consider the case when B is a negative number; then the expressions will be equal. Then consider the case when B is non-negative; $A - |B|$ will always be less than $A + B$. Plug in some numbers to try and find a counterexample, and look for patterns.

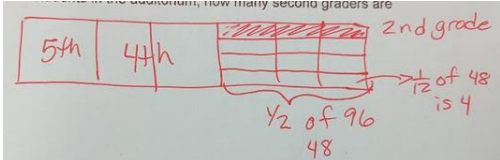
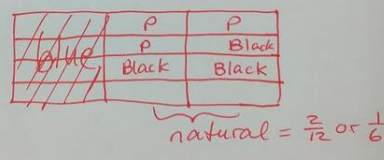
Day 2

1. 5 2. 0 3. 2 4. 1 5. 13 6. -18 7. -19 8. -8 9. -12 10. 11 11. -6 12. -3 13. Answers may vary 14. Answers may vary. Example: $-12 = -5 - 7$ 15. Answers may vary. Example: $-75 = -25 + -50$ 16. 2682 ft 17. 13 18. 21 degrees 19. \$1.25 20. \$57 21. 11 22. 171 feet 29. 30.

Day 3

1. 60 2. -64 3. 30 5. -45 5. -11 6. -5 7. 4 8. -120 9. -2 10. -15 11. 16 12. -12 13. 648 14. -108 15. 0 16. -3 17. -3 18. -6 19. 2 20. 4 21. -2 22. 45 meters below sea level, or -45 23. -975 meaning in 15 days you will lose 975 hairs 24. $-4(12)$ meaning she spent \$48, or $100 - 4(12)$ meaning she has \$52 left on the card 25. All answers are -5 26. A negative fraction means either the numerator OR the denominator OR the quotient is negative; one at a time.

Day 4

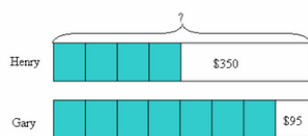
1.  2. 

3. $2/3$ 4. $-11/2$ 5. $-43/8$ 6. $-35/8$ 7. $-19/12$ 8. $-321/40$ 9. $103/20$ 10. $87/40$

Day 5

1. $-5/12$ 2. $4/5$ 3. $7/9$ 4. $-5/6$ 5. $-6/7$ 6. $-164/15$ 7. $77/20$ 8. $-45/4$ 9.

10.



$$350 - 95 = 255$$

$$3 \text{ units} = 255$$

$$1 \text{ unit} = 255 \div 3 = 85$$

$$7 \text{ units} = 85 \times 7 = 595$$

Answer: Gary has \$595 after shopping.

11. $-18/11$

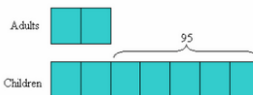
12. $-40/27$

13. $-29/363$

14. $387/418$

15. $-9/10$ 16. $-32/27$ 17. $10/19$ 18. $-1/12$ 19. $52/161$ 20. $-74/45$

Draw a diagram with 9 equal parts: 2 parts to represent the adults and 7 parts to represent the children.



$$5 \text{ units} = 95$$

$$1 \text{ unit} = 95 \div 5 = 19$$

$$7 \text{ units} = 7 \times 19 = 133$$

Answer:

There are 133 children in the restaurant.

Day 6

- 1) -7.05 2) $-0.\overline{4}$ 3) -0.425 4) -0.66 5) $2.\overline{16}$ 6) -0.375 7) $-9/10$ 8) $17/50$ 9) $8/99$ 10) $5/9$ 11) $111/200$ 12) $-70,001/10,000$ 13) $25,347/100,000$ 14) $-16/5$ 15) $53/55$ 16) $500/99$ 17) $41/333$ 18) $169/555$ 19) $11749/150$ 20) 2.3 21) example: $6/10$ 22) yes, Archimedes was right because $3 \frac{1}{7} = 3.1428\dots$ and $3 \frac{10}{71} = 3.1308\dots$ and pi lies between those two numbers